**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HEADWATER RESEARCH LLC,	
Plaintiff,	Case No. 2:22-cv-00422-JRG-RSP
v.	**JURY DEMANDED**
SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC.,	
Defendants.	

**PLAINTIFF HEADWATER RESEARCH LLC'S
<u>OPENING CLAIM CONSTRUCTION BRIEF</u>**

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I.   INTRODUCTION

Samsung attempts to distract with false assertions and irrelevant responses to arguments not even made by Headwater. Most critically, though, Samsung ignores that nothing in the intrinsic evidence suggests that the claimed inventions are intended to deduce a user's subjective opinions. Instead, the intrinsic evidence shows that, while a mobile device application may perform a background operation that ultimately benefits a user (e.g., downloading a software update), the claimed inventions recognize that a user is not *perceiving* any benefit from that application during the background activity. *E.g.*, '701 patent at 8:18-42. This means the application's network access can be blocked while still allowing network access for applications that are providing perceptible benefits, such as a music application playing a song. Samsung ignores the intrinsic record and miscasts the Headwater patents as claiming systems for reading a user's mind, so that Samsung can argue indefiniteness. Samsung's analysis is fundamentally flawed and should be rejected.

II.   LEVEL OF ORDINARY SKILL IN THE ART

Samsung does not dispute Headwater's proposed definition of the level of ordinary skill, nor does Samsung dispute Dr. Chrissan's qualifications as a POSITA. Dkt. No. 83 at 3.

III.   ARGUMENT

A.   The disputed claim term is not subjective.

1.   Samsung's subjectivity criticisms are irrelevant because they are not based on the actual claimed inventions.

Samsung declares without any support that "whether a device's user 'perceiv[es] a benefit' from a particular application is purely subjective" because "such a determination will necessarily vary for different end-users based on their particular preferences, experiences, or opinions." Dkt. No. 83 at 3, 4. That is wrong. Application activities have a perceptible benefit (e.g., playing audio or displaying content) or do not have any perceptible benefit (e.g., background software updates

not noticeable to the user). As Dr. Chrissan explains, a user is perceiving a benefit when the activity is perceptible through human senses, including vision, hearing, and touch. Chrissan Decl. ¶ 28.

Samsung does not (and cannot) dispute that application activities either do or do not have a perceptible benefit. But according to Samsung, the word "benefit" requires determining if a user personally likes what they can perceive, such as whether the user enjoys the song being played by a music application. Dkt. No. 83 at 4 ("such a determination will necessarily vary for different end-users based on their particular preferences, experiences, or opinions"). There is no intrinsic or extrinsic evidence supporting Samsung's erroneous claim interpretation. Nothing in the claims or specification suggests that the claimed inventions are intended to deduce a user's personal tastes. And in his unrebutted declaration, Dr. Chrissan explains that a POSITA would not interpret the claims as Samsung does. *See* Chrissan Decl. ¶¶ 22-35.

Further, the intrinsic record confirms that whether an application's activities have a perceptible benefit is an objective inquiry. Application activities are either user-facing and have benefits that are readily apparent to a user (e.g., a music application that plays a song for the user to hear), or they are not user-facing and do not benefit the user in ways the user perceives (e.g., a background software update). Indeed, the specification identifies "software updates for OS and applications," "background network accesses," and "background email downloads," as exemplary background activities with no perceptible user benefit. *See* '701 patent at 8:18-42 ("For example, ***even when the user is not directly interacting with or benefiting from this type of application,*** the application can be running in the background and continuing to consume potentially significant network resources. For example, the types of service activities and/or device behavior that can reduce network capacity and/or network resource availability ***include software updates for OS and applications***, frequent OS and application ***background network accesses*** and signaling, …

background email downloads … [v]arious other examples will now be apparent to one skilled in

the art.").[1] Because the user is not "perceiving any benefit" from such background activities, the

claimed inventions can block network access for that application to conserve network resources.

Id. Meanwhile, the claimed inventions still allow network access for applications that are providing

perceptible benefits (e.g., a music application playing a song). This is consistent with the

understanding of engineers in the field. *See, e.g.*, Ex. 14 (Sharkey Rough Tr.) at 180:12-182:3

(Google engineer confirming "a user expectation is that perceptible applications should still be

able to use a network and not be unconditionally blocked from all networks" and that "the goal [of

engineers using the word 'perceptible'] would be to reference the ability for a user to perceive it").

2.   Headwater's (and Samsung's) examples confirm "perceiving any benefit" from an application is an objective inquiry.

As Headwater has explained, "perceiving any benefit" from an application activity is an

objective inquiry, because for application activities like a "background software update," "there is

nothing for a user to perceive, making it impossible for a user to be 'perceiving any benefit' from

that application." Dkt. No. 82 at 7. Samsung's response to this argument only confirms that the

claim is objective. Samsung first attacks a straw-man, arguing that "there is never a scenario in

which the claimed 'first end-user application' is not running at all." Dkt. No. 83 at 7. But this

criticism is irrelevant, as Headwater's example has the end-user application running a background

software update that is not perceptible. Samsung ***does not rebut*** this example, in which it is

objectively true that the user is not "perceiving any benefit" from the background software update.

Failing to rebut Headwater's actual example, Samsung offers a new example of its own:

Regardless, even if an application is running in the background, and thus presents "no output," an end-user may or may not still ***believe*** its operation to be beneficial. For example, a user might find an email or messaging application that operates in

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[1] All emphasis in quoted material has been added unless otherwise noted.

the background to keep an end-user's device caught up on email to be ***beneficial even if the user is not currently interacting with that application or otherwise perceiving any of those updates***.

Dkt. No. 83 at 7. In Samsung's example, it is clear that the user is not "perceiving any benefit" from the application because the "user is not currently interacting with the application or otherwise perceiving any of those updates." *Id.* Indeed, the specification identifies "background email downloads" as an example of "when the user is not directly interacting with or benefiting from [the] application." '701 patent at 8:18-42. Samsung's suggestion that the user is still perceiving a benefit in this example contradicts the specification and defies logic, as a user cannot "perceive a benefit" from background activities the user does not know exist. Samsung's example confirms that whether a user is perceiving a benefit from application activity is an objective inquiry.

3. Samsung wrongly asserts that case law and inventor testimony prove that "perceiving any benefit" is subjective.

Samsung also argues that the facts here mirror those of two cases, *Datamize* and *Interval Licensing*. Dkt. No. 83 at 4-6. Both are readily distinguishable. For example, in *Datamize*, the Federal Circuit found claims that recited an "aesthetically pleasing look and feel" for interface screens to be indefinite. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1345, 1356 (Fed. Cir. 2005). Those are far from the facts here. The claims here do not recite "perceiving music that is pleasing to the user's ear" or anything of the sort. Instead, the claims here recite "perceiving any benefit" to distinguish between an application benefit that a user can perceive (e.g., a music application playing a song) and an application benefit that a user cannot perceive (e.g., the music application fetching a background software update). *E.g.*, '701 patent at 8:18-42 (discussing "software updates" as background activities "when the user is not directly interacting with or benefiting from the application"). That does not require any analysis of whether the user personally enjoys the song a music application is playing. It also bears noting that, in *Datamize*, the

"aesthetically pleasing" language was rejected as indefinite during prosecution of a continuation application, and the applicant deleted the language in response to the rejection and told the Examiner it was "superfluous and unnecessary." *Id.* at 1345, 1353. There are no such facts here.

Samsung's reliance upon *Interval Licensing* is similarly misplaced. In that case, the Federal Circuit found indefinite claims that recited displaying images "in an unobtrusive manner that does not distract a user of the display device," explaining that "whether something distracts a user from his primary interaction depends on the preferences of the particular user and the circumstances under which any single user interacts with the display." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (internal quotation marks omitted). Those are very different from the facts here because Headwater's claimed inventions do not depend upon how something looks on a display. Further, Samsung does not rely on Headwater's file history, but the prosecution history in *Interval Licensing* was important to the finding of indefiniteness. *E.g.*, *id.* at 1372 ("The prosecution history further illustrates the difficulty in pinning down the relationship between the written description and the 'in an unobtrusive manner that does not distract the user' claim phrase. The statements of Interval, and the responses of the USPTO, reflect considerable uncertainty about which embodiments were tied to the 'unobtrusive manner' language."). No such facts exist here.

Samsung also argues that inventor testimony supports its argument that "perceiving any benefit" is subjective. Dkt. No. 83 at 4. Samsung is wrong. As a factual matter, co-inventor Alireza Raissinia is a non-expert and non-lawyer who Samsung deposed *12 years* after he left Headwater, asking about claim language without Dr. Raissinia having reviewed any patents or other intrinsic evidence. *See* Ex. 15 (Raissinia Tr.) at 13:12-19, 98:21-25. Samsung's contextless question with an understandably non-committal answer proves nothing. Dr. Raissinia did not suggest the claimed inventions are directed to determining a user's personal tastes in music or anything else. Notably,

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Samsung could have asked these same questions to lead inventor Dr. Greg Raleigh, who is still at

Headwater and very familiar with the asserted patents—but tellingly, Samsung did not. And as a

legal matter, courts commonly give inventor testimony about claim construction matters minimal,

if any, weight, even where the inventor is familiar with the patents. *E.g.*, *Oakley, Inc. v. Sunglass

Hut Int'l.*, 316 F.3d 1331, 1342 n.2 (Fed. Cir. 2003) ("We consider [the inventor's] testimony to

be of little value in the definiteness analysis or claim construction."); *Bell & Howell Document

Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d 701, 706 (Fed. Cir. 1997) ("The testimony of an inventor

and his attorney concerning claim construction is thus entitled to little or no consideration.").

> **B.   Even if "perceiving any benefit" were a subjective term (and it is not), the intrinsic evidence provides more than reasonable certainty as to its scope.**

Samsung argues that there is no relationship between the specification examples identified

by Headwater and the "perceiving any benefit" claim language. Dkt. No. 83 at 9-11. This is not a

credible position. The specification explicitly refers to the problem of background applications

draining resources, even tracking the claim language by reciting "directly interacting with or

benefiting," before listing numerous examples of such background activities:

> For example, ***even when the user is not directly interacting with or benefiting from this type of application, the application can be running in the background and continuing to consume potentially significant network resources***.

> For example, ***the types of service activities and/or device behavior that can reduce network capacity and/or network resource availability include*** software updates for OS and applications, frequent OS and application background network accesses and signaling, frequent network discovery and/or signaling (e.g., EtherType messages, ARP messages, and/or other messaging related to network access), cloud synchronization services, RSS feeds and/or other background information feeds, application (e.g., web browser) or device behavior reporting, background email downloads, content subscription service updates and downloads (e.g., music/video downloads, news feeds, etc.), text/voice/video chat clients, virus updates, peer to peer networking applications, inefficient network access sequences during frequent power cycling or power save state cycling, large downloads or other high bandwidth accesses, and/or greedy application programs that continually and/or frequently access the network with small transmissions or requests for information. Various other examples will now be apparent to one of ordinary skill in the art.

'701 Patent, 8:18-42. The specification explicitly refers to application activities that "the user is not directly interacting with or benefiting from" and then gives examples of such activities (e.g., "software updates," "background email downloads"). Given these numerous examples, it is absurd for Samsung to argue that the specification provides no objective guidance to a POSITA.

Samsung also argues the claims are indefinite because "merely pointing to examples in a patent's specification does not equate to providing an objective standard for a POSITA." Dkt. No. 83 at 11. But the specification *here* provides objective boundaries demonstrating the reasonable certainty of "perceiving any benefit." The examples all make clear that "benefit" is not subjective and has nothing to do with a user's personal tastes. For example, the specification indicates that a user is not perceiving a benefit when a mail application fetches "background email downloads" or when applications engage in "background network accesses," "software updates," "background information feeds," "device behavior reporting," or "virus updates," among other examples. These concrete examples provide certainty as to activities that do not provide benefits the user *perceives*.

As a result, Samsung's reliance upon the *Prolifiq* case is misplaced. In that case, the patents "provide[d] examples of 'differently versioned' digital content elements, such as a video version of a digital content element as opposed to a flash version of a digital content element," but those examples did not clarify the bounds of the claim. *Prolifiq Software Inc. v. Veeva Sys. Inc.*, No. C 13-03644 SI, 2014 WL 3870016, at *6 (N.D. Cal. Aug. 6, 2014). But here, the specification examples make clear that "benefit" is not dependent upon the subjective tastes of a user, as none of the examples consider a user's personal opinions. *E.g.*, '701 patent at 8:18-42 ("background email downloads" is an activity "the user is not directly interacting with or benefiting from").

Samsung also argues that the *RevoLaze* and *Innova* decisions from this District are inapposite (Dkt. No. 83 at 12-13), but this argument is based on Samsung's mischaracterizations

of the intrinsic evidence. For example, Samsung wrongly asserts that the disputed claims "provide no understanding as to what types of application activity would be "perceived [as a] benefit" by a user," and that the specification "does not contain any examples or explanations which make clear or otherwise define when a given user would 'perceive a benefit' from an application and when he/she would not." *Id*. Samsung is wrong. The claims indicate that users do not perceive benefits from background application activities, and the specification further provides numerous examples of such background activities (e.g., background email downloads and software updates). *See, e.g.*, '701 patent at 8:18-42, cls. 1, 2. These disclosures are comparable to those in *RevoLaze* and *Innova*, where indefiniteness arguments like Samsung's here were properly rejected.

Continuing its straw-man attacks, Samsung mischaracterizes Headwater's explanation of how surrounding claim language demonstrates the reasonable certainty of "perceiving any benefit." Dkt. No. 83 at 13-14. First, Samsung asserts that Headwater "turns the well-known canon of claim differentiation on its head" by referencing the "directly interacting" claim language. *Id*. at 13. This argument makes no sense because Headwater's point was that the "directly interacting" language shows, **by contrast**, what "perceiving any benefit" means—not that the two terms are synonymous. *See, e.g.*, Dkt. No. 82 at 9 ("As Dr. Chrissan explains, 'if the user stops directly interacting with the device and leaves it on a table, the user is still perceiving a benefit from the music application if the playlist is still continuing to play music at a later time,' such that 'the application would still be considered a foreground application and not in a background state because the user is perceiving a benefit from the application.'" (quoting Chrissan Decl. ¶ 30)). Samsung offers no response to the actual point made by Headwater—just a pointless straw-man attack on an argument Headwater never raised. Samsung similarly deflects with respect to Headwater's points about the independent claims, wrongly calling Headwater's argument "nothing

more than a re-packaging of the claim language." Dkt. No. 83 at 14. The independent claims provide context by conveying that classifying an application as running in a background state is appropriate when a user is not ***perceiving*** any benefit from the application so that the user will be undisturbed when the application's network access is blocked. *E.g.*, '701 patent at cls. 1, 2.

C.   Samsung wrongly accuses Headwater of "rewriting" the claims.

Samsung further argues that Headwater is "rewriting" the claim language and "asking the Court to replace the word 'benefit' with 'noticeable operation.'" Dkt. No. 83 at 15-17. To the contrary, Headwater is not seeking any construction or rewriting of the claim language. Headwater has merely explained its understanding of the plain and ordinary meaning of the claim language, with numerous supporting citations to intrinsic evidence and with supporting expert testimony of Dr. Chrissan, who Samsung concedes was a qualified POSITA at the time of the invention. That is not "rewriting" the claims. And notably, Samsung offers no contrary evidence—no other claim language, specification teaching, file history excerpt, or expert testimony beyond what Headwater has offered. As Dr. Chrissan explained, "any "information from an application that is noticeable to a user is expected to be perceived by the user and to be beneficial to the user, or else the application would not waste resources presenting it (i.e., making it noticeable)." Chrissan Decl. ¶ 27. It is telling that Samsung does not even dispute this as a factual matter, opting instead to false accuse Headwater of claim "rewriting." Samsung similarly attacks Headwater for citing dictionary definitions of "perceive" (none of which are disputed by Samsung) only because Headwater did not also cite a dictionary definition of "benefit." Dkt. No. 83 at 16. Of course, that proves nothing, especially given that Samsung likewise does not offer any dictionary definition of "benefit."

Samsung also argues Dr. Chrissan "introduce[d] additional ambiguity into the separate, undisputed claim term, 'user,'" in his responses to various incomplete hypotheticals raised by Samsung at his deposition. *Id.* at 17-18. Dr. Chrissan understandably pushed back on Samsung's

unrealistic hypotheticals, such as whether a person who starts playing music on their phone and then leaves it at home while they fly to China would still be perceiving a benefit from the music application while in China. *Id.* at 18. Dr. Chrissan's point was simply that normal operation of a mobile device should be assumed. The indefiniteness standard does not require absolute certainty, particularly for all possible imagined scenarios, however illogical or unrealistic they may be. *Ironburg Inventions Ltd. v. Valve Corp.*, 64 F.4th 1274, 1284 (Fed. Cir. 2023) ("reasonable certainty" standard "mandates clarity, while recognizing that absolute precision is unattainable." (quoting *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014)).

D.   Samsung's concluding catch-all section mischaracterizes facts and law.

In its final section, Samsung begins with yet another straw-man attack. Headwater never said that expert evidence is required to prove indefiniteness. In fact, Samsung's quotation shows this—once Samsung's misleading ellipsis is removed. *Compare* Dkt. No. 83 at 19, *with* Dkt. No. 82 at 5 ("[w]ithout supporting expert evidence **and in light of the specification teachings disproving Samsung's arguments**, Samsung cannot meet its heavy burden"). Dr. Chrissan's testimony is fully supported by the record, and no intrinsic or extrinsic evidence supports Samsung.

Samsung then concludes by arguing that Headwater's reliance upon *Ironburg* and *Grace Instrument* is misplaced because they dealt with "terms of degree." Dkt. No. 83 at 20. This is a strange criticism, given that the *Interval Licensing* case cited repeatedly by Samsung was about a "term of degree." *Interval Licensing*, 766 F.3d at 1370 ("The key claim language at issue in this appeal includes a term of degree ('unobtrusive manner')."). In any event, the claim language here is neither subjective nor a term of degree. It is an objective question whether a user is perceiving a benefit from an application's activity. Samsung's theory that a user might believe a background activity to be beneficial misses the point, because the claims are about whether the activity has a *perceptible* benefit, not whether it offers any benefit at all. The claims are not indefinite.

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CERTIFICATE OF SERVICE

I hereby certify that counsel of record who are deemed to have consented to electronic service are being served on January 26, 2024, with a copy of this document via the Court's CM/ECF.

/s/ Marc Fenster
Marc Fenster